

Independent Review Panel

Final Report from Flood Management Review Process

January 27, 2004

Dear Mayor Toor and Members of the Boulder City Council:

We are writing today to provide a brief overview of the work of a dedicated set of volunteers who have been in-service to the city of Boulder since 1999, and to provide a recommendation for what we hope will become an operating standard in floodplain master planning and management for the future of Boulder.

In December 1999, Brian Hyde, Mary Fran Myers, Gilbert White, and Ken Wright were appointed to an Independent Review Panel (IRP) to provide oversight and advice on the restudy of the Fourmile Canyon/Wonderland Creek floodplain when the city discovered discrepancies in the existing floodplain mapping, and consequent community-confidence challenges were raised by the citizens living in that corridor. Since then we have provided similar assistance on the restudy of South Boulder Creek and the Comprehensive Flood and Stormwater Master Plan update. During the past five years, we have been joined by other scientists and experts as necessary, including: Dr. Bill Bradley and Dr. Rich Madole, who sat with us in the first two years as we reviewed the alluvial geology for the Fourmile-Wonderland formation. Dr. Jonathon Freidman provided invaluable assistance in reviewing the paleohydrology for South Boulder Creek. Most recently, UDFCD Executive Director Scott Tucker joined the IRP in the review of the Comprehensive Flood and Stormwater (CFS) master plan update.

During this period there have also been national reviews of a number of public flood management policies that are relevant to the Boulder area. For example, the Federal policy with respect to defining property subject to possible 100-year flooding and mandatory Federal flood insurance has been subject to critical evaluation. In recent years, the estimated national annual losses from floods outside the mapped 100-year floodplain have been larger than losses from within the 100-year flood zone, and there are questions as to whether or not the frequency adopted in the national insurance program has increased vulnerability to flood losses. Within the city of Boulder, for example, there are nearly 5300 properties known to be subject to the 500-year flood event.

We have truly enjoyed the opportunity to serve the city of Boulder. As the draft Comprehensive Flood and Stormwater drainage Master Plan moves into the board review process, we feel that we have met our obligations as an independent panel and it is time that we disband as a review group. However, please know that while we will no longer be sitting together as the "IRP," we do wish to be called upon in the event that the City Council has new questions or issues for which we can be of assistance.

We want to leave our work with a summary statement which we recommend guide the future of Boulder's floodplain management practice.

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In our 2001 Fourmile Canyon Creek Phase A Report recommendation, we provided a set of directions for staff to include in the Phase B scoping effort. In its most basic form, our recommendation, which is applicable to each of Boulder's 13 creeks/tributaries, suggests that the city of Boulder adopt flood management practices that consider the specific geology, challenges of adjacent development and anticipated flooding for each reach of each stream, and that the full array of non-structural mitigation tools (e.g., education and training, warning devices, and individual property flood-proofing) be given equal weight and consideration to structural applications (e.g., engineered flood-management installations, widened and channelized creeks, dams and floodwalls) so that situation-specific mitigation may be identified and designed to best fit each case.

Thus, we ask that the City Council acknowledge the contribution of five years of professional expertise and opinion by requesting the City Manager to assemble a flood risk management program that gives equal weight to non-structural and structural options and that is tailored to address the needs and resources identified in each particular floodplain.

We also remind the city of the role that citizen education will have in the formulation of the above-described tailored floodplain management system. Boulder must provide comprehensive flood protection education so that our residents can meaningfully participate in the formation of alternatives for their watershed.

Actions which citizens of Boulder should take in response to flood hazards include the following:

- 1) Effective emergency action every occupant in a floodplain should take, or NOT take, to reduce damages to life and property in the event a public warning flooding is issued;
- 2) What action every property occupant in a floodplain could take in advance of a flood to prevent or reduce losses before a flood occurs;
- 3) The effect of non-development in the floodplain on potential flood losses;
- 4) How to implement floodproofing measures;
- 5) Advantages of; and how to acquire flood insurance.

Again, we want to thank you for involving us in this important work. We have enjoyed the opportunity to serve our community and work on these critical projects.

Current members of the IRP since 1999, and for the 2003-2004 CFS Review:

Brian Hyde

Mary Fran Myers

Gilbert White

Ken Wright

L. Scott Tucker